



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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February 28, 2003

CERTIFIED RETURN RECEIPT
7099 3400 0016 8896 2680

Neil Bradshaw
Box 1054
Cedar City, Utah 84721

Re: Initial Review of Notice of Intention to Commence Large Mining Operations, Neil Bradshaw and all, Bright Project, M/021/030, Iron County, Utah

Dear Mr. Bradshaw:

The Division has completed our review of your draft Notice of Intention to Commence Large Mining Operations for the Bright Project, located in Iron County, Utah, which was received December 9, 2003. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading. Please format your response in a similar fashion. **Please address only those items requested in the attached technical review. You may send replacement pages of the original mining notice using redline and strikeout text, so we can see what changes have been made. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records. Please provide a response to this review by March 7, 2003.**

The Division will suspend further review of the Bright Mine Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me, Paul Baker or Doug Jensen of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
Attachment: Review
cc: Ed Ginouves, BLM, Cedar City FO
O:\M021-Iron\M0210030Bright I & 2\FinalInitialREV-.doc

INITIAL REVIEW OF NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

**Neil Bradshaw and All
Bright Project
February 28, 2003
M/021/030**

R647-4-105 - Maps, Drawings & Photographs

105.2 Additional Maps

Please include a reclamation treatments map showing the areas of the site, which will receive various reclamation treatments, shaded. These areas should be cross-hatched or color coded to identify which reclamation treatments will be applied to each area to be reclaimed. Reclamation treatments may include the following: ripping, regrading, replacing soil, fertilizing, broadcast seeding and/or drill seeding, etc. (DJ)

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

Please provide typical cross-sections of the areas to be mined. Show the present contours and the anticipated ground contours after regrading is completed. (DJ)

R647-4-106 - Operation Plan

106.3 Estimated acreages disturbed, reclaimed, annually.

The application states that this phase of mining is approximately 7 acres of mine and stockpiles. The map included with the application indicates a total of 16.3 acres of proposed disturbance. Please indicate on the map the location of the 7 acres of mine and stockpiles. (DJ)

Please show your mining plan schedule for the additional 9.3 acres. (DJ)

106.5 Existing soil types, location, amount

The application indicates there is about two inches of soil and that 1000 cubic yards will be stockpiled. There is no information about the pH, texture, salinity, or any other chemical or physical characteristics. The overburden is described in Section 106.4 of the application as being 0-1 foot thick with a note to the side saying "topsoil." In Section 106.6, the application says 0-12 inches of soil will be salvaged and stockpiled; from all of this information, the Division assumes that the operator considers the thin overburden to be topsoil that will be saved for reclamation. (PBB)

The application needs more detailed information about the quality and quantity of soils available in the area, particularly in the areas of the pads and the proposed borrow area. The discussion in the application about the small quantities of soil available appears to apply to the quarry areas and not to the processing pads where there is an average of at least four to six inches of topsoil above the subsoil. The Division and the operator need baseline information to **develop a complete** reclamation plan. The information required would include, at the least: an Order 3 soil survey that may be available from the Natural Resources Conservation Service, 2390 West Highway 56, Cedar City, Utah 84720-4166,

telephone number 435-586-2429. It is important to know whether there are any soil characteristics, either at the surface, or within the potential root zone, that would limit plant growth. It is also important to know how much soil should be salvaged and whether the material over which this soil is placed during reclamation is suitable as a growth medium. With this information, it might also be possible to take extra soil from the pads and avoid using a borrow area. (PBB)

The application needs to contain baseline soils information about the borrow area as it relates both to the amount of soil that can be borrowed and to reclamation. The Division is hopeful that it will be possible to obtain enough soil from the quarries and, particularly, from the pad areas to avoid using the borrow area. Before approving the borrow area, the Division needs to be certain it will be possible to reclaim that area as well. Please provide information about the nature and extent of available soils in the proposed borrow area. How much soil will be borrowed, and how much will be left to reclaim the borrow area? What is the texture? What are the chemical characteristics? Are there horizons at depth that would limit plant growth? Will it be possible to successfully revegetate this area if soils are borrowed from it? The most important chemical and physical properties for which the soil should be tested are texture including coarse fragment content, electrical conductivity, pH, and sodium adsorption ratio. (PBB)

Because there is so little soil available in the quarries, the application needs more information about the material upon which the soil will be placed in these areas. The application appears to indicate about four inches of soil will be replaced at the time of reclamation (one inch salvaged, three inches from the borrow area). Revegetation is not likely to be successful if four inches of soil is placed over bedrock. Can the material beneath the soil be rubbleized to make it more favorable for revegetation? If the material below the soil will be consolidated bedrock, is it possible to obtain more soil, or would it be better to place larger quantities of soil in smaller islands, or to amend the soil with something like composted manure?

The Division would be happy to make recommendations about the best methods for soil replacement, but additional baseline information is required before this can be done. Once the operator has some soil survey information, it would be possible to schedule a meeting to discuss the soils reclamation plan. (PBB)

106.6 Plan for protecting & redepositing soils

This portion of the application indicates a 1.9-acre borrow area which contains 12 inches (3000 cubic yards) of topsoil. How much of the soil located within this borrow area will be removed? If all this soil is harvested from this area, additional soils will need to be located to reclaim the borrow area. Is this 1.9-acre borrow area a part of the 16.3 acres of disturbance indicated in the application, or will this area be in addition to this area? (DJ)

The application indicates approximately two inches of soil is present, but that only 1000 cubic yards, at an average depth of one inch over the entire site, will be stockpiled. Please state what will happen to the rest of the soil. (PBB)

Please provide information about how salvaged soils will be protected, such as through seeding, mulching, berming, and signing the stockpiles. (PBB)

106.7 Existing vegetation - species and amount

The application is required to contain baseline premining vegetation cover information sufficient to establish revegetation success standards. This section says, "BLM to advise."

The Division needs site specific information about the plant species present and the amount of vegetation cover represented by each of these species, to determine the reclamation standards and to review the revegetation plan. (PBB)

R647-4-107 - Operation Practices

107.6 Concurrent reclamation

The application gives no information indicating whether it will be possible to perform concurrent reclamation or showing how this might be done. Please provide this information. (PBB)

R647-4-109 - Impact Assessment

109.4 Slope stability, erosion control, air quality, safety

In this section, the application says the operator has contacted the Division of Air Quality and that nothing is necessary. Please provide evidence, such as a letter from Air Quality, to support this assertion. (PBB)

R647-4-110 - Reclamation Plan

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Please be more specific as to the final reclamation of highwalls. The statement "as necessary" is not sufficient. (DJ)

110.5 Revegetation planting program

The statement on soil material replacement "as per BLM specs" is not sufficient. In order to have a comprehensive plan, a more specific proposal on soil replacement is necessary. Soil replacement is an activity that will be a part of the final bond amount calculated for the site. (DJ)

The application indicates the seed mix to be used will be one approved by the Bureau of Land Management. The plan needs to identify what this mix will be. With some baseline

vegetation information, the Division might be in a position to recommend a seed mix, but without baseline information, no recommendation is possible. (PBB)

The application indicates seed will be drilled or broadcast, but it does not give any information about other revegetation practices that might be used, such as fertilizer application, mulching, or soil surface preparation. While the Division does not often recommend applying fertilizer, some amendments, such as composted manure, may be needed depending on the nature of the soil. Also, any compacted areas should be ripped or otherwise mitigated prior to seeding. The reclaimed surface should be left in a roughened condition. All of this information should be included in the application. (PBB)

R647-4-111 - Reclamation Practices

111.5 Land capable of post mining land use

The application contains very limited information about the premining conditions and the nature of the postmining topography. Without this information, the Division cannot judge whether it will be possible to achieve the proposed postmining land uses. Once the Division has better information about the existing soils and vegetation and about the planned condition of the site after reclamation, it should be easier to determine if the site can be reclaimed to the current land uses. (PBB)

111.12 Topsoil redistribution

The application should contain a plan for the redistribution of the soil during reclamation. (DJ)

R647-4-112 – Variance

The application does not contain any variance requests from the operational and/or reclamation performance standards. The Division therefore assumes none are necessary. (DJ)

R647-4-113 – Surety

A draft reclamation surety cost estimate cannot be completed until the information requested in this review is received. A blank copy of a reclamation surety estimate form is included for your use. (DJ)